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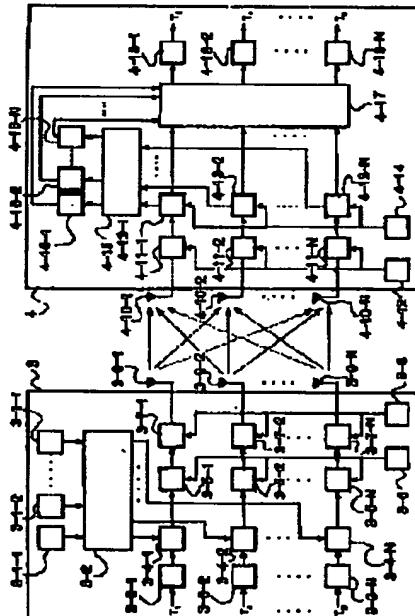
(54) OFDM SIGNAL TRANSMISSION APPARATUS
AND OFDM SIGNAL RECEPTION APPARATUS

(57) Abstract:

PROBLEM TO BE SOLVED: To improve frequency utilization efficiency by composing an MIMO channel by a plurality of transmission/reception antennas for an OFDM signal transmission apparatus that is used in wideband mobile communication or the like.

SOLUTION: A transmission subcarrier pilot matrix generator, and transmission pilot signal configuration equipment are arranged as a pilot signal generator in the OFDM signal transmission apparatus. The transmission subcarrier pilot matrix generator generates a matrix other than a single matrix where a determinant does not become zero and a matrix of the complex multiples of the single matrix with a transmission pilot signal P^{imn} at the m -th symbol that is transmitted by the n -th antenna in the i -th subcarrier as constituents in the m column n row. The transmission pilot signal configuration equipment inputs a constituent at m column n row into a multiplexing circuit from all P^i as transmission pilot signal constituents ($p^{1mn}, p^{2mn}, \dots, p_{mn}$) at the m -th symbol in the n -th antenna.

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